arrangement of plaits upon the columella. M. stephensoni has four plaits upon the columella against three in the new species and the suture is less impressed. In M. henekeni the primary cords are not so oblique, the aperture narrower and less extended.

Undoubtedly this species has escaped notice on account of its superficial resemblance to the young M. lineolata Heilprin, a common shell in the Caloosahatchee marl. Pl. 6, fig. 5. Pliocene, Clewiston, Florida.

Goniobasis effora<sup>5</sup> n. sp. Shell elongated, whorls regularly placed and five in number exclusive of the eroded nucleus; suture moderately impressed, deeply cut in part and forming a groove; body whorl with about eleven spiral lirations which are closely placed below the periphery, on the inferior whorls one more prominent than the others and forming a slight keel shortly above the suture, the keel separated from the suture by a raised line of the usual size; the lirations crossed throughout with wavy raised growth lines which on the body whorl do not extend below the periphery; aperture large and with thin lip which is sinuous. Length of holotype, 24 mm., aperture 10 mm. Paratypes are smaller and in the author's collection.

Dall in his work upon the southern Tertiary mentions that Mr. Willcox secured a *Goniobasis* in the Florida Tertiary, subsequently lost before a description could be prepared. He states its resemblance to *G. hallenbecki* Lea. The present new species does not recall that one but rather the recent *G. troostiana* Lea,

but the sharp carina is dominant in that species.

At Belle Glade, the type locality for Fusinus watermani, there appears to be a mixture of Pliocene deep water shells and possibly some Miocene. The new Goniobasis possibly belongs to the latter formation. Associated with it was a specimen of Architectonica granulata Lam., which never before has been reported from the marls in this portion of the state. Pl. 6, fig. 4a, 4b. Tertiary, Belle Glade, Florida.

## NOTES ON "AMERICAN CONCHOLOGY" BY THOMAS SAY, WITH SPECIAL REFERENCE TO THE SEVENTH PART, EDITED BY T. A. CONRAD

BY H. E. WHEELER (Continued from p. 50)

Part V treats of sixteen species, listed on the cover as before in alphabetical order by genera. The cover is dated August,

<sup>&</sup>lt;sup>5</sup> effosa, suggested by excavated suture.

1832. There are again forty pages of text, and ten plates, numbered 41–50, all of which were engraved by Mr. L. Lyon. The species treated are, in the order presented in the text, as follows: Unio lapillus, Unio camptodon, Unio lugubris, Crepidula plana, Modiola papuana, Helicina orbiculata, Helicina occulta, Melania virginica, Melania multilineata, Melania semicarinata, Melania lacqueata, Ranella caudata, Cerithium muscarum, Cerithium septemstriatum, Cerithium ferrugineum, Mytilus hamatus. Four of these are for the first time described, and so italicized in our list.

The last page of the cover carries several important notes. The first reads: Notice. With this number we send gratis to those who have paid for the preceding Nos., a copy of a work which we have recently printed, entitled "Glossary to the American Conchology," explanatory of the terms made use of in the science of Conchology. A copy will also be presented to each subscriber who shall transmit by mail, free of postage, his respective sum now due, within one month after having received this number. We hope at a future day to be able to present our subscribers with an "Introduction to the science of Conchology," with plates, on the same terms.

The Glossary, then, was not a coordinate part of the *American Conchology*, but used as an inducement to subscribers to bring up their arrears. As it was partially distributed with this number, it is proper to associate the two and to bind them together.

Say authorizes the placement of his Sigaretus perspectivus in the genus Cryptostoma, and promises a characterization of the genus in his next number. This promise is fulfilled at the end of Part VI. Say also refers his Sigaretus maculatus to Cryptostoma, but retains the genus Sigaretus until he can publish a species that satisfies its diagnosis.

In a footnote on this cover Say credits his brother with the finding of a *Venericardia*, which came from New Jersey, and which he described under the name of *cribraria*. The description is here repeated, but since the specimen was imperfect he does not consider it entitled to recognition. The name *Venericardia cribraria*, then, has perhaps no other status in conchological literature than this brief diagnosis on a cover which bookbinders have so thoughtlessly scrapped.

Part VI consists of forty-eight pages of text, and ten plates, numbered 51–60. The eighteen species reviewed are found in the text in the following order: Unio nexus, Unio apiculatus, Unio quadrulus, Planorbis lentus, Planorbis trivolvis, Planorbis bicarinatus, Limneus emarginatus, Limneus catascopium, Limneus decidiosus, Pecten islandicus, Pecten dislocatus, Nassa unicineta, Nassa vibex, Nassa acuta, Ostrea equestris, Cytherea albaria, Petricola pholadiformis, and Petricola dactylis. Those in italic are new; and one, the Cytherea, is a fossil.

Following the plates there is a characterization of the genus *Cryptostoma* and a two-page Synonymy of the Western North American species of *Unio* and *Alasmodonta*. Forty-eight species of the former, and three of the latter genus are validated, ninety-five names being thrown into the synonymy. This little piece of work is the precursor of a flock of synonymies over which Isaac Lea and Timothy Conrad wrangled for many years.

The cover of Part VI is in every way similar to that of the preceding number, both of which bear the statement that the printing was done "at the M. Press," other covers showing that they were issued from the School Press. The "M." probably stands for Maclure, the patron of the author, and one of the founders of the New Harmony Community. The date on the cover is April, 1834.

On the fourth page of the cover Say attributes the delay in publication, an interval of twenty months, to the protracted illness and death of Mr. Lyon, the engraver. In the notes following H (elix) irrorata is made a variety of H. lactea Müll., Melania acuta is added to the synonymy of M. semicarinata. Say feels that Valvata arenifera, previously described in the Transactions of the American Philosophical Society, is in reality the follicle of a Phryganea. Caracolla helicoides is made a synonym of Helix palliata Say, and Helix carolinensis is made a variety of Helix appressa. Melania tuberculata is considered a variety of M. stygia Say, and Melania elongata is suggested as a probable variety only of M. elevata. Two corrections of dates are made. Attention is called to the fact that Plate 53 had been printed and colored with Barnes' name Unio rugosus instead of Rafinesque's name, quadrulus, which should stand. In the Binney copy of Say this plate has been corrected; but in the Marsh copy, which

is also before me, the plate carries the uncorrected name as originally engraved.

Part VII. This posthumous work of Say comprises sixteen pages of text and eight colored plates. Four of these plates were engraved by L. Walker, but whoever engraved the others failed to sign the coppers. The species treated are as follows: Donax variabilis, Donax fossor, Cyrena carolinensis, Venus alveata, Tellina brevifrons, Tellina mera, Tellina alternata, Tellina polita, Tellina tenta, Tellina tenuis, Arca zebra, Unio truncatus, and Unio lineolatus. Those italicized are new to science. The table of contents on the cover lists these species in the order in which they appear, not alphabetically as heretofore.

Following the text there is an Appendix, printed on one side of the last two pages, which publishes Say's manuscript description of *Chiton apiculatus*, but without a drawing. On the same page the editor, Conrad, quotes Say's observation that his *Venus alveata* is to be considered a variety of Dillwyn's *cingenda* (cancellata Lam.).

The cover of this rare part is similar to those of the foregoing numbers, save that it is printed on blue paper, the price of the number is omitted, and there is nothing to show when or where the number was published. The character of type would indicate that it was done in New Harmony, but that is by no means certain. Conrad's name does not appear either in the text or on the cover, and the parts for which he was responsible are indicated by the subscription "Editor," or simply "Ed." There are five of these editorial notes, but in addition the characterization of Tellina tenuis, and the observation as to the occurrence of Unio lineolatus in the Warrior River and elsewhere is undoubtedly Conrad's work.

It should also be noted that one of the species in this number is a fossil, *Venus alveata*, which was previously described by Conrad himself. The cover contains no announcement of the continuation or suspension of the work.

William G. Binney<sup>6</sup> states that Conrad brought out this Seventh Part after Say's death "which occurred in September, 1833." On December 12, 1834, George Ord, read a Memoir on

<sup>&</sup>lt;sup>6</sup> Binney, W. G., The Complete Writings of Thomas Say on the Conchology of the United States, New York, 1858, p. 226 foot note.

the life of Say before the American Philosophical Society, in Philadelphia, in which he gave the true date of his death, namely, October 10, 1834.

## Republications

In 1856 W. G. Binney brought out his first republication of Say's writings on Conchology. It consisted of 40 pages and was limited to the land shells described by Say. This was made the first part of a later work, entitled, The Complete Writings of Thomas Say on the Conchology of the United States, the original title page of which was used in place, but another title page prepared for the whole work. This included, also with an appropriate title page, a second part, pages 41–252, entitled, Descriptions of Fluviatile and Marine Shells of North America by Thomas Say. The title page of the first part was Descriptions of Terrestrial Shells of North America by Thomas Say, but bears the date 1858.

This republication does not reprint the Glossary to American Conchology. It does not reprint in the second part such descriptions of land shells as properly belong there, since they had appeared in the first part. The article in the second and third editions of Nicholson's American Encyclopedia are reprinted, with facsimiles of the plates, and Binney believed that the same article was printed in the first edition, but he had not succeeded in finding it. The several editions were dated 1816, 1818, and 1819 respectively.

All of the plates in the American Conchology were reproduced from the original coppers. Plate 75, the concluding one, is a colored illustration of Ampullaria rotundata, identified by Haldeman, which Say had described in the New Harmony Disseminator on August 12, 1829, but no figure had been published. Tiebout's original number for this plate "2" was left on it, the new number assigned (75) being placed at the top.

As far as the matter contained in the American Conchology is concerned, it is all reproduced in Binney's republication; but, as has been previously stated, not consecutively. Some copies of

<sup>&</sup>lt;sup>7</sup> Binney, W. G., The Complete Writings of Thomas Say on the Entomology of North America, New York, 1858, Vol. I, p. xii.

Part one only	* *
Has Glossary—Bound in or separate	* * * * * * * * * * * * * * * * * * * *
sis parts—no covers	* * * * * *
Six parts—and covers	*
Complete—seven parts— covers—original order preserved	* *
Seven parts—no covers	* * *
Seven parts—plates and covers complete	* * * * *
Original owner or name by which nwona si yqoo	Mrs. Say J. S. Phillips Acad. Nat. Sci. P.  (' '' W. G. Binney  Bryant Walker Ebenczer Lane Roswell Marsh  U. P. James' Copy Holliday Gopy
Present Depository	Acad. Nat. Sci. Phila.  Acad. Nat. Sci. Phila.  University of Southern California, Los Angeles, Dr. Irene McCulloch Library of J. R. LeB. Tomlin, England Library of H. E. Wheeler Museum Comp. Zoology, Cambridge John Crerar Library, Chicago Hist. Soc. of Pa., Philadelphia University of Michigan, Ann Arbor University of Chicago Library of H. E. Wheeler N. Y. State Library, Albany, N. Y. Boston Public Library Franklin Institute, Philadelphia Library of Congress Indiana State Library Workingman 's Library, New Harmony, Indiana British Museum Western Reserve College L. C. Glenn, Vanderbilt Univ.

Binney's Republication contain the extensive catalogues of the publishers, Messrs. H. Bailliere, bound with them in the back. From this catalogue of 1858 we learn that a copy of Say's American Entomology, a "very scarce" work, could be had for \$30.00; that copies of Binney's Republication of Say's Conchological Works were available at \$12.00, with coloured plates; but that the continuation section, just issued in 1858, was available for \$5.50 to subscribers to the first part, issued in 1856.

In 1840 Mrs. Lucy Say issued a reprint of some forty-eight species of land and fresh-water shells which her husband had published at various times between 1829 and 1831 in the New Harmony Disseminator of Useful Knowledge, and in the Transylvania Journal of Medicine, Lexington, Kentucky. This work is occasionally incorporated with copies of the Conchology. Mrs. Say states in the preface to this pamphlet that all these species would have appeared in the forthcoming numbers of the Conchology, with illustrations, had Say lived to realize his ambition. She regrets that she cannot furnish the illustration now. She states that many of the shells described had been already deposited in the Academy of Natural Sciences, and that others were in her own cabinet.

## JUNIUS HENDERSON

## BY T. D. A. COCKERELL

Junius Henderson died, after a long and painful illness, on the night of Nov. 4, 1937. He was born at Marshalltown, Iowa, in April, 1865. Iowa, when it was still something of a frontier state, gave birth to a remarkable series of naturalists, such as Eastman, Evermann, Springer and Pilsbry. There must have been something stimulating in the atmosphere, sowing the seed in Henderson's mind which was to produce such an abundant crop during the last thirty years of his life. I remember him in the early years of this century, when he was still thought of as the county judge, learned in the law, and in all sorts of unobtrusive ways rendering service alike to the public and to private individuals. It will never be known how many people he wisely counselled, preventing them from making mistakes, or guiding